CLAIMS:

1. A method of improving luminance transition in a video signal, the method comprising:
decoding a coded video bitstream (102) around a transition from a first luminance level to a second luminance level; and
providing a luminance transition enhancement based on a metric (109) indicative of the degree of video artifacts present in the decoded video bitstream (104).

2. A method as recited in claim 1, further comprising, after the decoding, calculating the metric from coding information from the coded video bitstream.

3. A method as recited in claim 1, wherein the metric is a unified metric for digital video processing (UMDVP).

4. A method as recited in claim 3, wherein the video transition enhancement is based on a luminance transient improvement (LTI) value.

5. A method as recited in claim 4, wherein an enhancement is effected, if at all, when the UMDVP value is greater than zero.

6. A method as recited in claim 5, wherein if the UMDVP value is less than a predetermined value, video enhancement is effected only after performing artifact reduction.

7. A method as recited in claim 4, wherein the UMDVP value is greater than a predetermined value, and a shift, S', is applied at a particular location on a luminance transition curve of a video signal.

8. A method as recited in claim 7, wherein a plurality of UMDVP values are determined for a plurality of locations on a luminance transition curve; and a plurality of respective shifts, S', are calculated for the respective spots.

9. A method as recited in claim 7, wherein:

$$S' = f(UMDVP,S)$$

where S is the shift from the LTI.

10. A method as recited in claim 8, wherein the locations are one or more of: a block, a subpixel or a pixel.

11. An apparatus that improves luminance transitions, comprising:
a video decoder;
a metric calculation module that determines a metric indicative of the degree of video artifacts in a signal; and
a video processing module that includes a luminance transient enhancement module, wherein the luminance transient enhancement module provides a video transition based on at least a value of the metric at a location.

12. An apparatus as recited in claim 11, wherein the metric calculation module receives coding information from the decoder.

13. An apparatus as recited in claim 11, wherein the video processing module also at least includes an artifact reduction module.

14. An apparatus as recited in claim 12, wherein the metric is unified metric for digital video processing (UMDVP).

15. An apparatus as recited in claim 14, wherein the video enhancement module determines a luminance transient improvement (LTI) value for a plurality of locations along a luminance transition curve.

16. An apparatus as recited in claim 15, wherein the metric calculation module determine a UMDVP value for each of the plurality of locations.

17. An apparatus as recited in claim 16, wherein the video enhancement module effects a shift, S', at a particular location only if a corresponding UMDVP value is greater than a predetermined value.

18. An apparatus as recited in claim 16, wherein the video enhancement module effects a shift, S', at a particular location only after an artifact reduction module effects artifact reduction.

19. An apparatus as recited in claim 16, wherein the video enhancement module performs no shift at the particular one of the plurality of locations if the UMDVP value is less than a predetermined value.

20. An apparatus as recited in claim 16, wherein the locations are one or more of: a block, a subpixel or a pixel.